5612

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic | *Sheet No.* 2

State Texas

LOCALITY

[illegible] of Corpus Christi, Bay

Western Part

1934

CHIEF OF PARTY

Earl O. Heaton

U. S. GOVERNMENT PRINTING OFFICE: 1934

18

Form 537
Ed. Dec., 1930

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 2 5612 ✓

REGISTER NO.

State Texas ✓

General locality Corpus Christi Bay ✓ Large ✓

Locality Western part ~~of Corpus Christi Bay & Corpus Christi Harbor~~

Scale 1:10,000 ✓ Date of survey March to July, 1934 ✓

~~Vessel~~ Project: HT-118

Chief of Party Earl O. Heaton, Lieut. ✓

Surveyed by J. L. Hale, Observer & W. R. Helm, Observer

Protracted by Warren L. Moore

Soundings penciled by Warren L. Moore

Soundings in ~~fathoms~~ feet ✓

Plane of reference MLLW ✓

Subdivision of wire dragged areas by

Inked by H. Evans & Miss H. V. Bennett

Verified by H. Evans

Instructions dated Nov. 5, 1932 & Supp. inst. Nov. 16, 1933 Mar. 5, 1934 ✓

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1931

Hydrographic Sheet Number 2 and the accompanying records have been inspected and are approved.

Earl O. Heaton

Earl O. Heaton,
Chief of Party, C.& G.S.

DESCRIPTIVE REPORT TO ACCOMPANY
HYDRO. SHEET NO. 2
WESTERN PART OF CORPUS CHRISTI BAY

Date of Instructions:

Instructions for this work were dated Nov. 5, 1932, with supplemental instructions dated Nov. 16, 1933 and March 5, 1934 (Project HT-118).

Survey Methods:

Most of the sounding for this sheet was done from a launch, using a pole graduated in feet and having a thin perforated plate about 6" in diameter on the bottom to prevent its sinking in soft mud. For depths of about 10 ft. and over a lead line was used. For inshore work the pole was used from a skiff propelled by an outboard motor.

No sounding was done in the Corpus Christi Ship Channel east of the breakwater since the U. S. Engineers maintain this part of it at a minimum depth by dredging.

Discrepancies:

There are frequent notations in red in the record books for this sheet of "decrease in speed apparently not noted" or "increase in speed apparently not noted". This explanation was used wherever a spacing for a continuous line could not be made to check all positions within 10 seconds of the recorded time. This notation was probably used in many places where there was not an omission in recording but changes of speed actually occured without the recorder's knowledge. The launch Bird Island was very unsatisfactory as a hydrographic launch because it was almost impossible to operate it at a constant speed. The record books show many places where one of the motors failed to perform. Another possible cause for an omission in noting change of speed may be because the engineer failed to notify the recorder when changes were made.

The estimation of distances by eye on this sheet, especially from the ends of lines to the breakwater, was uniformly bad and appeared to bear out the principle that distances over water are usually estimated short of what they actually are.

The position numbers (green B day) of the soundings taken at the channel beacons were omitted on the smooth sheet because the beacons were plotted by triangulation.

Postions 40 C & 41 C (green) and 59D thru 63D (green) and their included soundings plotted off the north edge of this sheet but were plotted on Sheet 3.

"Front" was plotted on a temporary offset to this sheet in order to locate positions 15K and 21K (red). "Shaft" was plotted on a temporary offset to this sheet in order to locate positions 2J and 4J (green) and 3M and 5M (red) on the insert for this sheet. Two or three other positions were plotted on the insert and transferred to the main sheet and vice versa.

There was some discrepancy in places between the recorded time and course and the plotted time and course on lines 13a to 27a (blue, skiff) and 1b to 27b (blue, skiff). The hydrographer in charge reported that the heavy surf at the entrance to Nueces Bay was responsible for this.

The day beacons on the south side of the Corpus Christi Ship Channel are dolphins made of 3 piles fastened together with wire rope and surmounted by a 1 x 8 x 36 in. board giving the number. The bare height for these dolphins and all other exposed piles are shown on this sheet above MLW.

The soundings on line 20K to 21K (red) were spaced evenly from 20K to the drawbridge and from the drawbridge to 21K because the time noted for passing under the bridge didn't check its location.

There was some conflict between the soundings in the ship channel on lines 18K to 20K (red) and 28K to 29K (red). The shoaler soundings were used here. The sdgs. omitted are now plotted. J.S.E.

On line 58F (red) to 70F,(especially the eastern portion of this line), there were some unaccountable errors encountered when it was attempted to check the locations of the day beacons on the south side of the channel from this line. However, the depths in this area are not seriously affected because of the flat bottom. The locations of the day beacons should be alright because they were made later and all have a check angle in addition to the three-point fix. It is possible that one sextant used on the faulty line was out of adjustment.

The 18 ft. sounding recorded just before 29D (red) was changed to 13 ft. because the surrounding depths here (110 meters SW of triangulation station RED) gave no indication of a deep hole. It is thought that the quick change here from sounding pole to lead line might have caused a 5 ft. error in reading the depth.

The topographer who located topo signal "Break" apparently used the wrong latitude cut in pricking his point. This sheet was protracted using the topo location of "Break" which is about 3 meters N by W of the subsequently computed position of "Break". Inspection of the 37 hydrographic positions on this sheet using the true triangulation position of "Break" was made and it was found that the comparative displacement was so unimportant that they were not replotted.

Dangers:

There is a shoal located at Lat. 27° 48.46' and Long. 97° 21.40' with a least depth of 4 ft. at MLLW between positions 9 and 10 K (red).

A shoal extending out from the breakwater to enclose topo. signal "Day". This is a part of the spoil dump on the south side of the Corpus Christi Ship Channel which extends entirely across this sheet. The least depth over the outlying part of this shoal is 3½ ft. at MLLW between 48 and 49 F (red) in Lat. 27° 48.45' and Long. 97° 22.95'.

A shoal extending out from the breakwater to enclose Corpus Christi Bn. The least depth in the outlying part of this shoal is a depth of 6 ft. at MLLW at Lat. 27° 47.45' and Long. 97° 22.7' between 3D (red) and 4D (red).

Another shoal is developed in the area extending from 27° 47.2' and 97° 22.7' to 27° 46.7' and 97° 21.9'. The least depth at MLLW on this shoal is 5½ ft. on line 66 to 67 D (red) at 27° 47.0' and 97° 22.5'.

Another development southeast of the above shoal is a part of the same shallow region and has least depths at MLLW in the following locations: 5 ft. between 18 & 19 G (green) and 20 and 21 G (green) at Lat. 27° 45.8' and Long. 97° 21.72', 4½ ft.between 31 and 32G (green) at Lat. 27° 45.57' and Long. 97° 21.5'.

The shoal development extending southeasterly from Indian Pt. (topo. signal "Cot") has twelve different loops of the 6 ft. depth curve. The outlying 5 ft. depths are located at 27° 50.48' and 97° 20.65', 27° 50.56' and 97° 20.93', 27° 50.64' and 97° 20.77', 27° 50.71' and 97° 20.91', and 27° 50.78' and 97° 20.9'.

Inside the breakwater, the dangers apply only to the smaller craft such as sailboats and small power boats. The foul area offshore easterly from triangulation station TANK is littered with scattered rocks, piles and remnants of wreckage. The entire strip of shallow water along the shore inside the breakwater is more or less foul with scattered fragments of wreckage, mooring blocks, etc.

There is a sunken hull of a 3 masted schooner about 75 ft. long located at Lat. 27°47.48' and Long. 97° 23.41'. The depths of water over this wreck

is 2 ft. at MLLW. About 20 meters north of this wreck is an intake crib protected by eight 10" piles bare 13 ft. at MLLW.

There is a barge aground at Lat. 27° 47.41' and Long. 97° 23.52' but it is of no danger as it is bare 2½ ft. at MLLW and is in very shallow water. The same applies to the group of piles about 70 meters E by S.

Channels:

The turning basin and the Corpus Christi Ship Channel from the basin out to the breakwater are maintained by the Nueces Co. Navigation District. Several 29 ft. depths were found in this portion of the channel on the center line (the project depth is 30 ft.). The channel extending eastward from the breakwater is maintained by the U. S. Engineers and had a minimum depth in Aug. 1934 of 30 ft. and a bottom width of 200 ft.(The project depth is 30 ft.). The day beacons on the south side of the channel are dolphins composed of 3 piles strapped together. The 10" pile inside the breakwater at Lat. 27° 48.56' and Long. 97° 23.45' lines up with this line of dolphins. The line of single piles north of the channel marks the U. S. Engineer's reference line and it is supposed to be 400 ft. north of the channel center line. These piles were placed approximately 2000 ft. apart. The single 12" pile at 27° 48.60' and 97° 23.49' is also a reference pile for the channel passing under the bridge. The lighted beacons with the exception of #29 are 275 ft. from the center line of the channel.

The only other channel shown on former charts of this area ran in a westerly direction thru the breakwater from a point just south of Corpus Christi Bn. (triangulation station RED). This channel is not maintained now but still has a minimum depth of 8 ft. thru the breakwater. The beacon is still maintained. Small boats now enter the area enclosed by the breakwater thru the above described opening, through the ship channel opening, or through one of the three following places: opening at Lat. 27° 47.98', 27° 48.12', or 27° 48.28'.

It is recommended that the topographic locations of the five most westerly reference line piles , ie. those located by hydrographic positions 46B, 50B, 52B, 55B, and 57B (green), be used. The two locations of these piles check reasonably well except in the case of 57B, which differs by approximately 20 meters.

Comparison with Previous Surveys:

In accordance with the "Notices to Mariners" of Oct. 17, 1934, the Corpus Christi Channel Light #29 was changed on Oct. 10, 1934, "to flashing white every 2 seconds, flash 0.4 second, eclipse 1.6 seconds, of 150 candlepower".

The 12' curve as shown on this sheet is considerably different from that on the last edition of chart 1286 in the area north of the ship channel. It has now moved down until it excludes only a small area on the north side of the channel from Bn. 27 eastward. In general the depth of the Bay is 1 to 2 ft. less than formerly.

The 6' curve in this area is in about the same position on the shoal southeast of the Nueces Bay Causeway. The numerous mounds outlined by the 6' curve southeast of Indian Pt. do not appear on the old chart.

In the area shown as a spoil bank S of the channel on previous charts we now have two definite locations of 6' curves, ie. that extending east from the breakwater and running just to the north of topo. signal "Day" and the shoal at 27° 48.45' and 97° 21.4'. There is also a 6' spot on the spoil dumps at 27° 48.47' and 97° 20.50'.

The 6' curve along the shore south of the breakwater is practically unchanged in location.

The shoal which showed formerly as 3' deep at 27° 45.6' and 97° 21.5' is now 4½ ft. deep at MLW. There appears to have been a general deepening of the water over the shoal spots south of the channel of from ½ to 2 ft. The location of these shoals is practically unchanged and the conformation of the 6' curve in the shoal water is nearly the same.

It is impossible to describe the changes in location of the 12 ft. curve south of the channel on this sheet. In general the strip about 1 mile wide south of the Corpus Christi Channel spoil dump is from one to 3 ft. shallower than shown on the last chart. The remainder of the area south of the channel shows a general decrease in depth of ½ to 1½ ft.

The old chart shows a small boat channel running to the breakwater from a point just south of Corpus Christi Bn. which was noted ashaving a depth of 5¾ ft. in June, 1925. This channel is no longer maintained but the least depth at present anywhere in this area is 8 ft.

The only change noted in shore line on this sheet was a slight change in the shape of the spit extending southeast from Indian Pt.

There is a change to be noted in the terminal facilities at Corpus Christi which is not shown on this sheet. From the turning basin a channel 7500 ft. long has been dredged westerly to Avery Point. This channel has a depth of 30 ft. and a bottom width of 150 ft. A new basin has been constructed at Avery Pt. which is 800 ft. by 2000 ft. and has a depth of 30 ft.

Geographic Names:

There are three new geographic names on this sheet, viz. Indian Pt., Indian Reef, and Alta Vista Reef. They are all well established by local use.

Statistics for Sheet, Field No. 2:

Number of positions	1,481
Number of soundings	11,168
Statute miles of sounding lines	352.6

Men in Charge of Hydrography:

J. L. Hale and W. R. Helm, Observers, had charge of the hydrographic parties which did the field work for this sheet.

Inspected and approved:
Earl O. Heaton
Earl O. Heaton,
Chief of Party, C.& G.S.

Respectfully submitted,
Warren L. Moore
Warren L. Moore,
Surveyor

Form 567
Rev. Jan. 1933

DIVISION OF CHARTS, FILE NO._____

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Corpus Christi, Texas

December 18, 1934

DIRECTOR, U.S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

Earl O. Heaton

Earl O. Heaton
Chief of Party.

DESCRIPTION	POSITION						METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE		DATUM		
	°	'	D.M. METERS	°	'	D.P. METERS		
*TANK, elevated, steel	27	48	1122.7	97	23	1297.7	N.A. 1927	Triangulation	1286
(△Aransas Compress Co., tank, 1931)									
*TANK, elevated, steel (△Port tank, 1931)	27	48	1209.0	97	23	1301.1	"	"	"
*STACK, white, concrete (△Central Power & Light Co., stack, 1931)	27	47	989.4	97	23	1059.2	"	"	"
*SIGN, PLAZA Hotel (✓) and verified (△Plaza Hotel sign, 1931)	27	47	1421.4	97	23	1281.5	"	"	"
TOWER, Breakers Hotel (△North elevator shaft Breakers Hotel, 1934)	27	49	548.0	97	23	419.0	"	"	"
STACK, Spohn Hospital (△Steel Stack, Spohn Hospital, 1934)	27	46	1040.2	97	23	1069.6	"	"	"
CUPOLA (⊙Man) Cupola of stucco house)	27	45	1131	97	22	1120	"	Topography	"
All objects are visible from the water.									
Checked and verified by: Warren L. Moore									

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive indentification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U.S. GOVERNMENT PRINTING OFFICE: 1934 25379

Form 567
Rev. Jan. 1933

DIVISION OF CHARTS. FILE NO._____

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

~~AIDS TO NAVIGATION~~

LANDMARKS FOR CHARTS

Corpus Christi, Texas

December 18, 1934

DIRECTOR, U.S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

Earl O. Heaton
Chief of Party.

DESCRIPTION	POSITION						METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE		DATUM		
	° ′	D.M. METERS		° ′	D.P. METERS			
CORPUS CHRISTI CHANNEL BEACONS:								
FR "14" (△1934)	27 48	1232.4		97 19	577.6	N.A. 1927	Triangulation	1286
F "23" (△1934)	27 48	1065.4		97 19	576.6	"	"	"
F "25" (△1934)	27 48	1050.8		97 20	1058.4	"	"	"
F "27" (△1934)	27 48	1035.6		97 21	1544.0	"	"	"
F1W"29" (△1934)	27 48	1036.4		97 23	461.5	"	"	"
BEACON, FR (△Corpus Christi Bn., 1934)	27 47	718.1		97 22	1122.2	"	"	"
BEACON, FR (△Corpus Christi Breakwater Bn., 1934)	27 48	8.5		97 23	285.8	"	"	"
See additional aids on list submitted to Washington office on October 16, 1934.								
Checked and verified by: Warren L. Moore								

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive indentification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U.S. GOVERNMENT PRINTING OFFICE: 1934 26379

FIELD RECORDS SECTION

Verification Report on H-5612

July 26, 1935.

1. The records conform to requirements.

2. The usual depth curves are complete within the limits of the survey, with the following exceptions: The 0 ft. curve is broken inshore, in the usual manner. The 6, 12, 18, and 30 ft. curves in the Corpus Christi Channel, at the entrance to the turning basin, and in the basin, are incomplete as governed by the area sounded.

3. The field plotting was complete, with the exception of 2 courses which were omitted, in the aforementioned channel entrance to the basin. The verifier has plotted these courses since they affect the depth curves.

4. Additional work by the verifier consisted of: replotting 6 positions, respacing 7 courses, and replotting 1 pile to check T-6230 (1934), lat. 27°-48.7', long. 97°-23.2'.

5. The junction with H-5694 (1934), which makes the complete overlap with this sheet, is generally good on the north, south, and east. The inshore courses at the northwest and southwest, show conflict, which bears out the statement in the descriptive report, that difficulty was experienced in sounding with the skiff.

6. Remarks: Generally speaking, the smooth sheet plotting was well done. The entire sheet was plotted in half feet, which made it convenient for the verifier in handling the depth curves over this flat area. Capt. E. P. Ellis was consulted in the modification of these curves.

With the boat sheet as reference, a dashed yellow line is used to outline a reef area at lat. 27°-48.4, long. 97°-23.3.

Topographic comparison was made with T-6230, T-4873, and T-4904, (all 1934), also with photo comp. T-5365 and T-5367 (both 1934).

Respectfully submitted

J. S. Evans

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5612

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	1481
Number of positions checked	5%
Number of positions revised	6
Number of soundings recorded	11,168
Number of soundings revised	None
Number of signals erroneously plotted or transferred	None

Date: July 26, 1935

Verification by T.S. Evans — Time: 18 Da. - 5 Hrs.
Inked by Miss H.V. Bennett — 2 Da. - 1 Hr
Review by — Time:

To: H.L. Strong
From: C.F.M.

Date. Feb. 1, 1935

GEOGRAPHIC NAMES
Texas

Survey No. H 5612

Chart No. 1286

Diagram No. 1286

*, Approved by the Division of Geographic Names, Department of Interior.

¢, Not Approved by the Division of Geographic Names, Department of Interior.

R, Referred to the Division of Geographic Names, Department of Interior.

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	Indian Point		Same		
	Indian Reef	Ink later	"		
✓	Nueces Bay	Same			
	Corpus Christi Bay	Ink " later			
✓	Corpus Christi	"			
	Alta Vista Reef	Ink after verified	Same		
	Alta Vista	Same			
	Rincon Point	"			
	Corpus Christi Channel	"			
		APPROVED NAMES [illegible]			
		[signature]			

(M 100)

LAC

April 19, 1935

FE

Division of Hydrography and Topography:

✓ Division of Charts: Attention Mr. E. P. Ellis

Tide Reducers are approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 5612

Locality Western Part, Corpus Christi Bay, Texas

Chief of Party: Earl O. Heaton in 1934
Plane of reference is mean low water, reading
2.5 ft. on tide staff at Corpus Christi
4.5 ft. below B.M. 1

Height of mean high water above plane of reference is 0.3 foot.

Condition of records satisfactory except as noted below:

Paul P. Whitney

Chief, Division of Tides and Currents.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5612 (1934) - FIELD NO. 2

Corpus Christi Bay, Western Part, Texas
Surveyed in March - July, 1934
Instructions dated November 5, 1932 (E. O. Heaton)
Supplemental Instructions dated November 16, 1933, and March 5, 1934
Director's Letter of April 18, 1934

Pole and Hand Lead Soundings. 3 Point Fixes on Shore Signals.

Chief of Party - E. O. Heaton.
Surveyed by - J. L. Hale, W. R. Helm.
Protracted by - W. L. Moore.
Soundings penciled by - W. L. Moore.
Inked by - H. V. Bennett.
Verified by - H. Evans.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except that the projection figures on the smooth sheet were not oriented properly. They were not changed in the office.

The Descriptive Report is comprehensive and adequately covers all matters of importance.

2. Compliance with Instructions for the Project.

This is an excellent survey and fully complies with the instructions for the project.

3. Shoreline.

The shoreline and topographic signals were taken from graphic control sheets T-6230 (1934), T-4873 (1934) and T-4904 (1934).

4. Sounding Line Crossings.

The difficulty experienced in maintaining a uniform speed with the sounding launch did not prevent good results being obtained. The sounding line crossings are excellent and adjacent parallel lines are also in good agreement.

5. Depth Curves.

Within the limits of the survey, the usual depth curves may be satisfactorily drawn, including portions of low water curve.

6. Junctions with Contemporary Surveys.

The junction on the north, east and south with H-5694 (1934) is satisfactory.

7. Comparison with Prior Surveys.

H-958 (1868).

This survey, on a scale of 1-20,000, covers the entire area of the present survey. There have been many changes, both natural and artificial, since the period of this survey. The dredging of Corpus Christi Channel with the formation of a spoil bank on the south side as well as the construction of the breakwater have influenced some of these changes, however most of the area appears to be subject to considerable natural change as well. The large flat areas on both sides of the channel in Corpus Christi Bay have shoaled up from 1 to 3 feet and the 12 foot curve has moved out several miles in the area north of lat. 27° 47'. There is still a general shoaling extending in a southeasterly direction from the breakwater but the depths over the shoal spots are now from ½ to 2 feet deeper. Because of these numerous changes, H-958 (1868) should be superseded by the present survey which covers the area adequately and is on a larger scale and in more detail. H-958 (1868) is the only prior survey by this Bureau covering this area.

8. Comparison with Chart No. 1286 (Corrected to February 12, 1935).

a. Hydrography.

Within the area of the present survey, the chart is based on the survey discussed in the foregoing paragraph except for the outline of the Corpus Christi Channel and the spoil bank immediately south of it which were charted from U. S. Engineers' Blueprints No. 20,688 (1925), No. 20,689 (1925), and No. 24,259 (1930-1). The spoil bank should now be charted as shown on the present survey.

b. Aids to Navigation.

The lighted beacons east of the breakwater were located by triangulation on the present survey and are in substantial agreement with the charted positions which originate with Engineers' blueprints. The present locations are considered more accurate and should be accepted for charting. The day beacons, which are dolphins, on the south side of the channel and the line of single piles on the north side of the channel which were located on the present survey are not shown on the chart.

The range beacons on the north and south side of Corpus Christi Turning Basin were located by topography and are in fairly close agreement with the charted positions. The new locations correctly mark the ranges.

There are no floating aids to navigation in this area.

c. Controlling Depths.

(1) Corpus Christi Channel extending eastward from the breakwater is maintained by the U. S. Engineers and for this reason was not developed on the present survey. The controlling depth in this channel is charted by a hand correction to agree with letters received monthly from the Engineers. The present charted depth is 27 feet from chart letter No. 796 (1935).

(2) The turning basin and the channel from the basin out to the breakwater are maintained by the Nueces Co. Navigation District. The present charted controlling depth in the basin and in this channel is 28 feet (chart letter No. 136, 1935). This depth is consistent with the soundings of the present survey. The dredged channel with a controlling depth of 28 feet leading westward from the west end of the turning basin (also charted from letter No. 136, 1935) falls beyond the limits of the present survey.

(3) A channel, with a depth of 5-3/4 feet, is charted in approximate lat. 27° 47.4' and leading westward from Corpus Christi Bn. The 5-3/4 foot charted depth originates with chart letter No. 345/17 (1923). The present survey shows a minimum depth of 8 feet in this channel, however the field party reports that the channel is no longer maintained. (See page 3, descriptive report). For this reason the channel limits should be discontinued on the chart.

9. Field Plotting.

The prescribed amount of field plotting was well done.

10. Additional Field Work Recommended.

This survey is complete except that soundings off the end of the wharf in lat. 27° 47.4', long. 97° 23.5' (municipal wharf) would have been desirable. However, no additional work is recommended at this time.

11. Note to Compiler.

The compiler's attention is called to the last paragraph in par. 8c of this review. The triangulation position of the beacon on the breakwater (topo signal Break) is now available, however it differs only about 3 meters from the topographic location.

12. Superseding Old Surveys.

Within the area covered the present survey supersedes the following survey for charting purposes:

H-958 (1868) in part.

13. Reviewed by - R. L. Johnston, October 14, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green, C. K. Green
Chief, Section of Field Records.

L. O. Colbert
Chief, Division of Charts.

F. S. Borden
Chief, Section of Field Work.

G. Rude
Chief, Division of H. & T.

Applied to drawing of Chart 1286 Dec 1935 S.B. Marzo
" " " " " 1117 May 1940 g.H.S.
applied to Chart 523 apr. 1945 W.E.M.

Applied to Chart 524 3/1/65 John P. Weir